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FIG. 1

Bacteriophage N4 vRNAP promoters

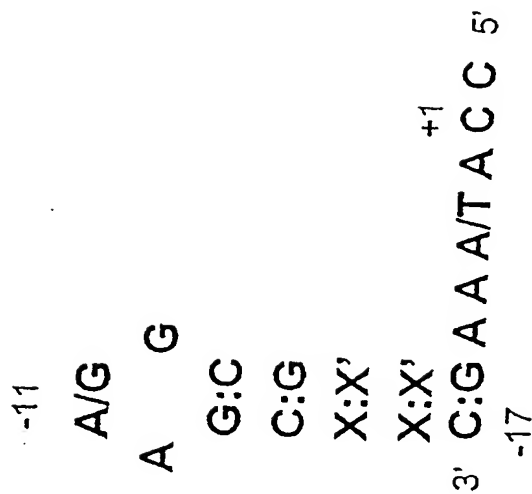


FIG. 2

N4 vRNAP and generation of mini-vRNAP

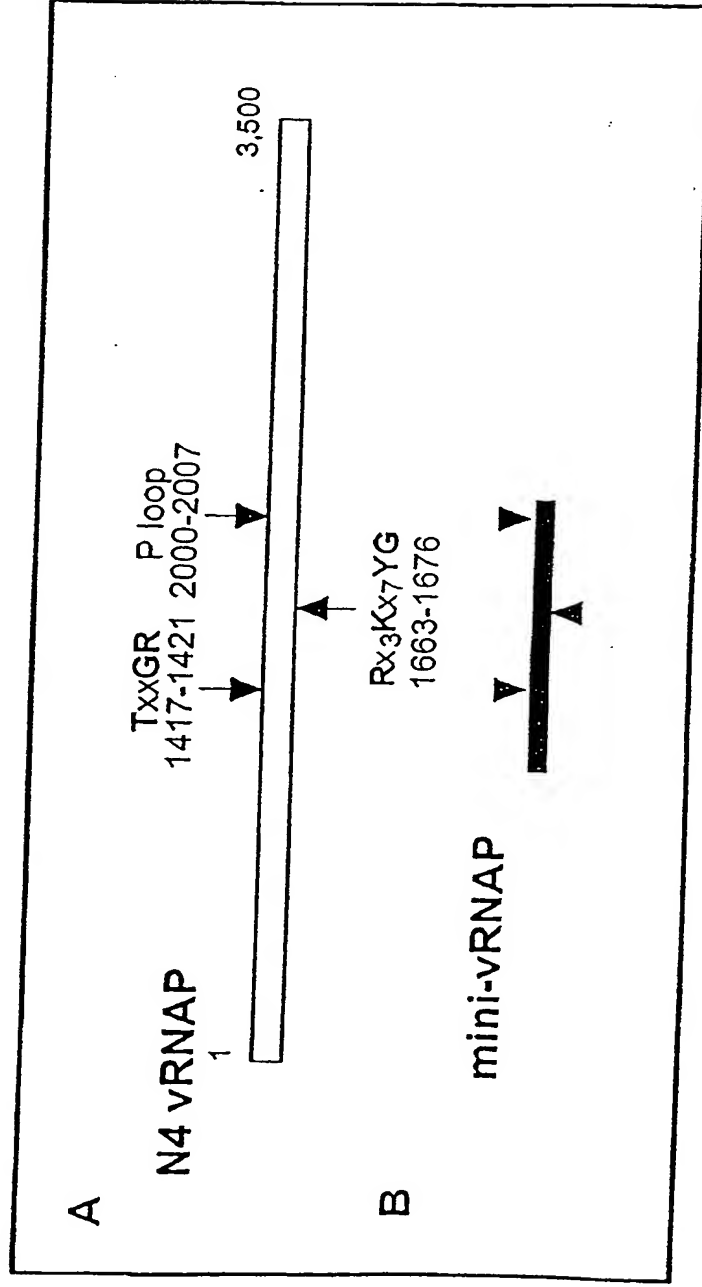


FIG. 3

Identification of the minimal active domain of N4 vRNAP
by proteolytic cleavage.

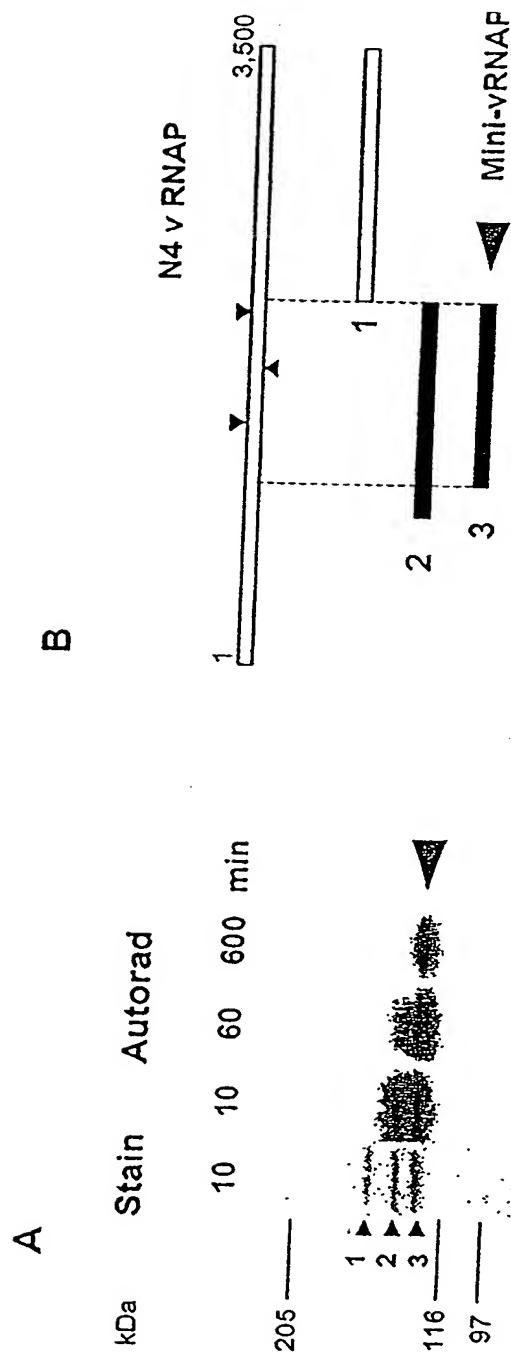
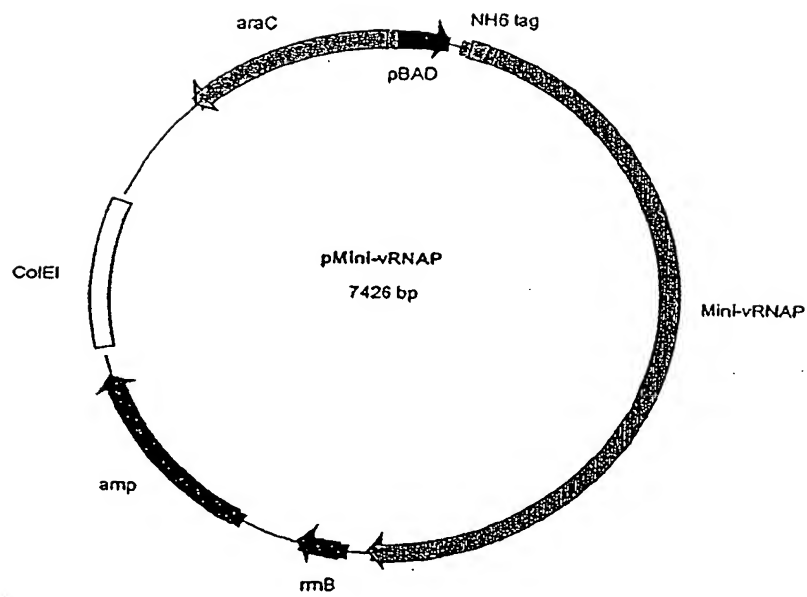


FIG. 4



Plasmid name: pMini-vRNAP
Plasmid size: 7426 bp
Constructed by: K. M. Kazmierczak
Construction date: 2/2000
Comments: Insert cloned into Invitrogen
pBAD 8 expression plasmid

FIG. 5

Purification of cloned vRNAP and mini-vRNAP

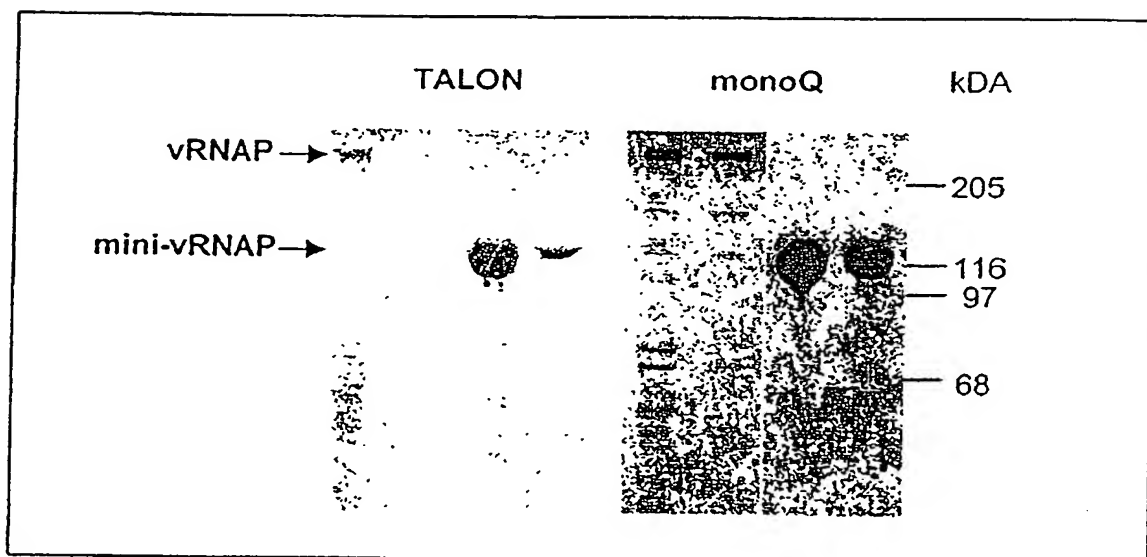


FIG. 6

Activation of N4 vRNAP transcription by *Eco* SSB
at different ssDNA concentrations

ssDNA, nM	0.8	4	20
<i>Eco</i> SSB	+	-	+

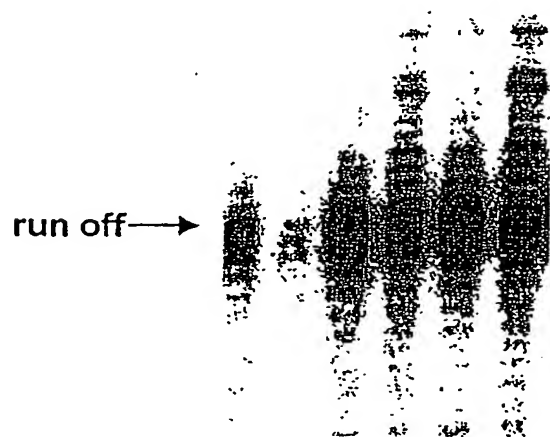


FIG. 7

Effect of Eco SSB on ssDNA template recycling

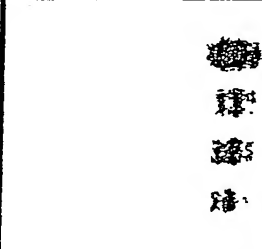
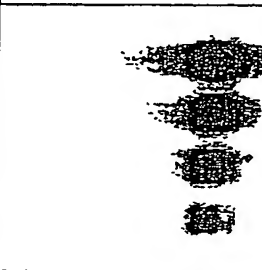
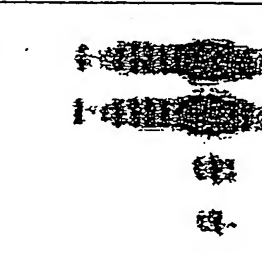
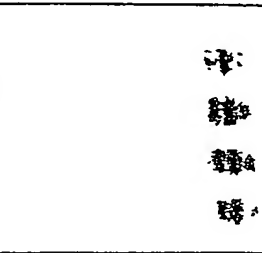
A	B	C	D
Extra ssDNA Eco SSB time at 37°C	+ + - - - 10' 20' 30' 40'	+ + + + + 10' 20' 30' 40'	- - - + + 10' 20' 30' 40'
			

FIG. 8

Effect of *Eco* SSB on the state of template DNA
and product RNA in vRNAP transcription

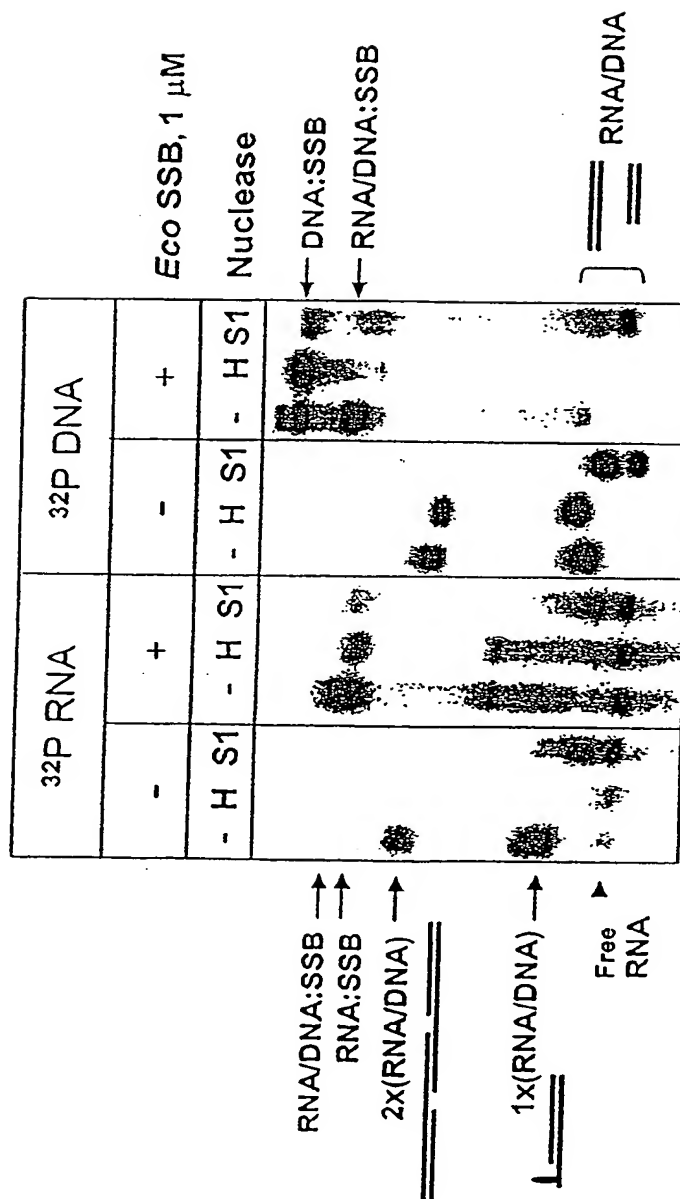


FIG. 9

Transcription initiation by vRNAP and mini-vRNAP

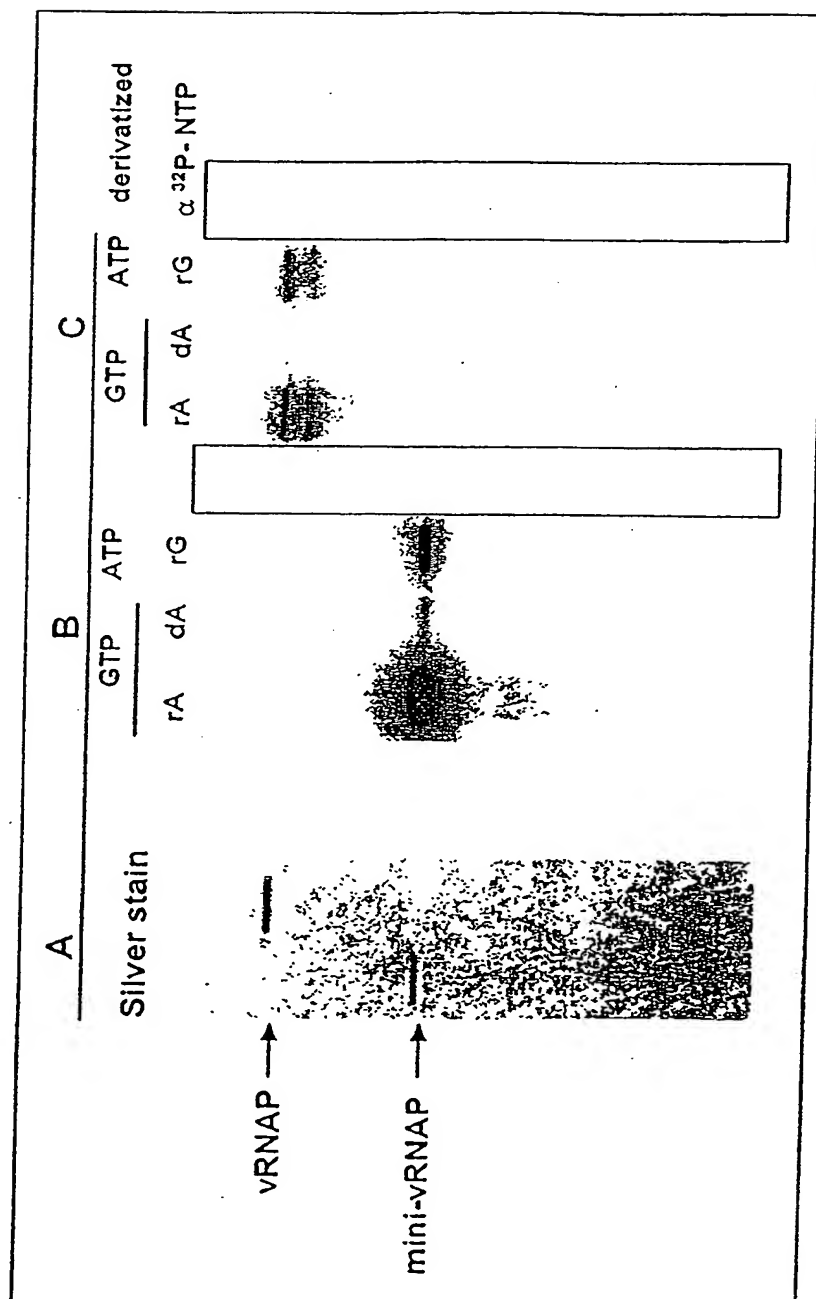


FIG. 10

Effect of *Eco* SSB on transcription of vRNAP and mini-RNAP

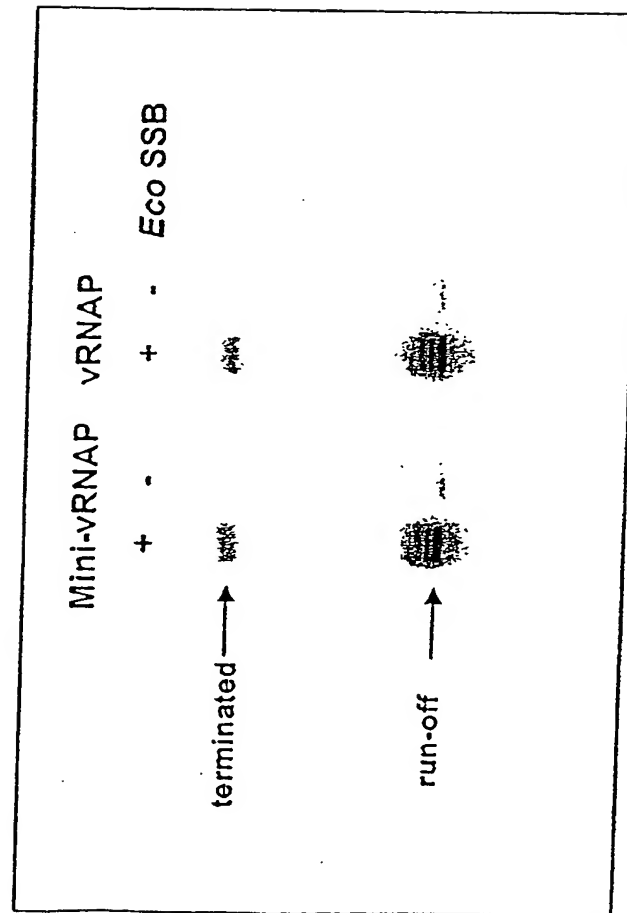


FIG. 12

Binding affinities of stem-length promoter mutants

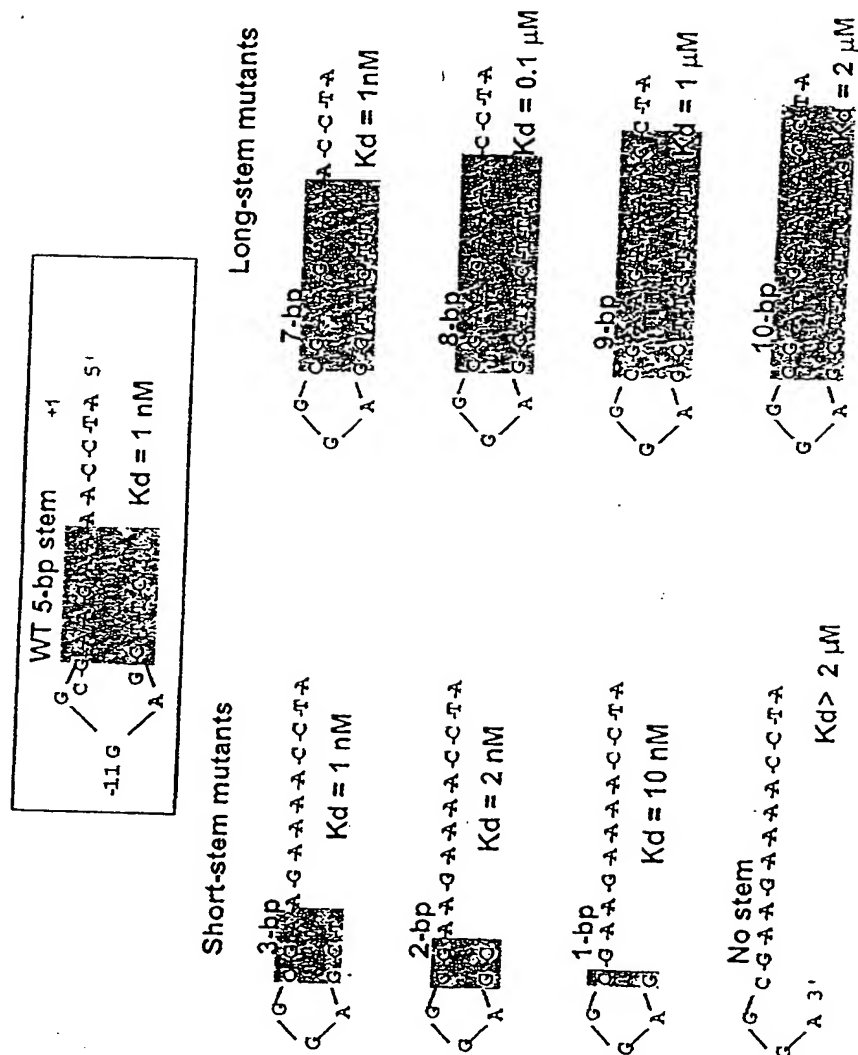


FIG. 13

Identification of the transcription start site by catalytic autolabeling

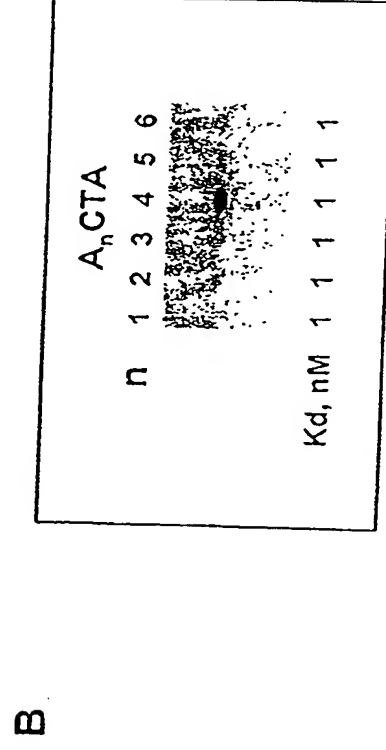
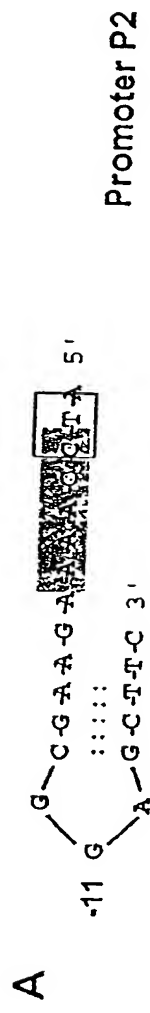


FIG. 14

UV crosslinking of mutant mini-vRNAPases
to promoter oligonucleotides

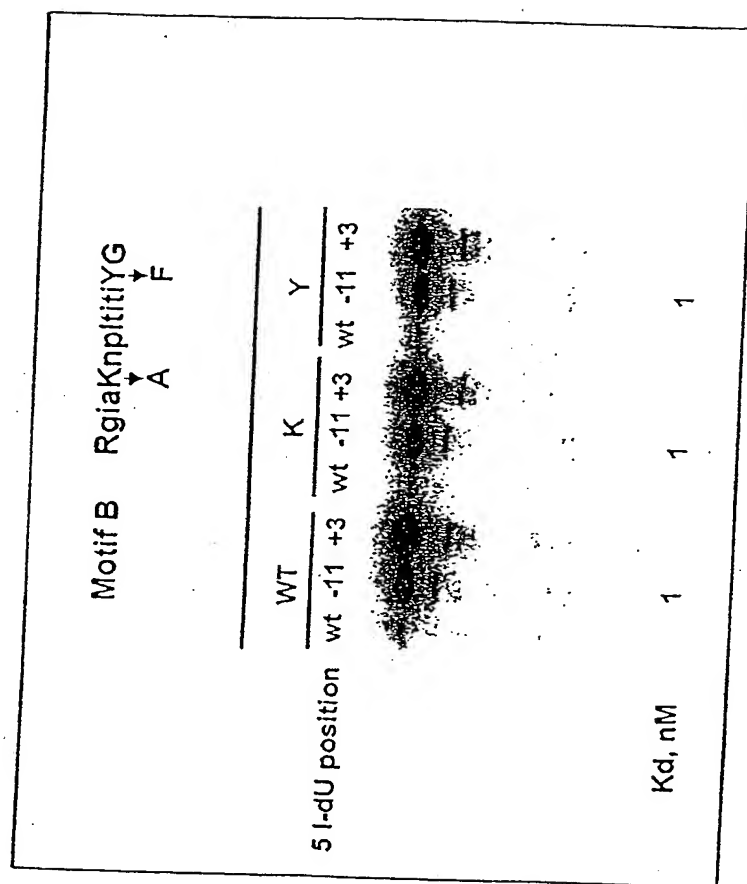


FIG. 15

Run-off transcription by mutant mini-vRNAPases

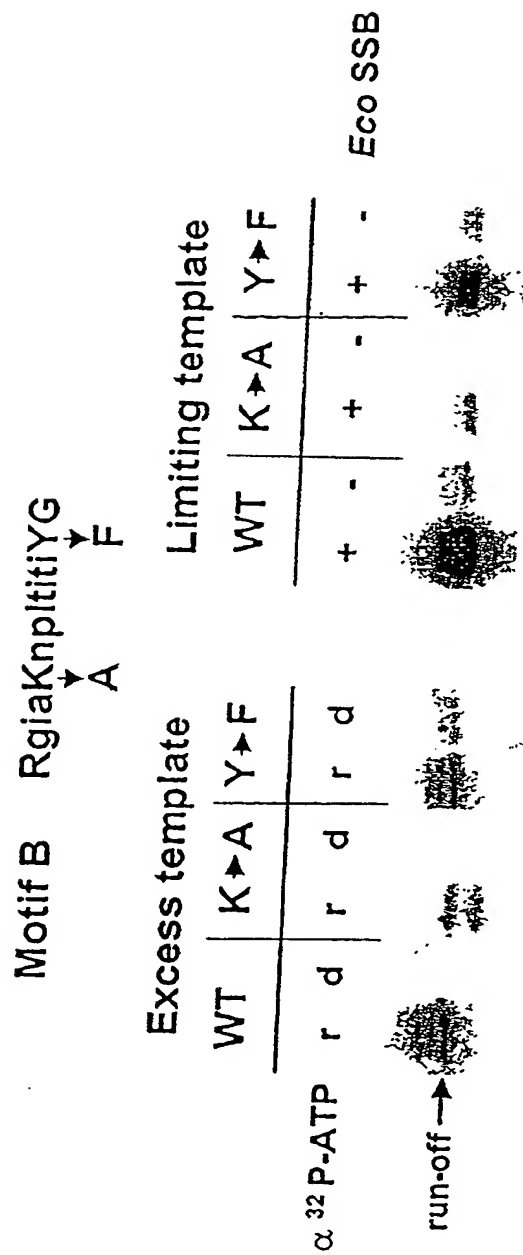


FIG. 16

Mutant mini-vRNAPases transcription initiation

Motif B RgiaKnplltitiY
 ↓ ↓
 A F

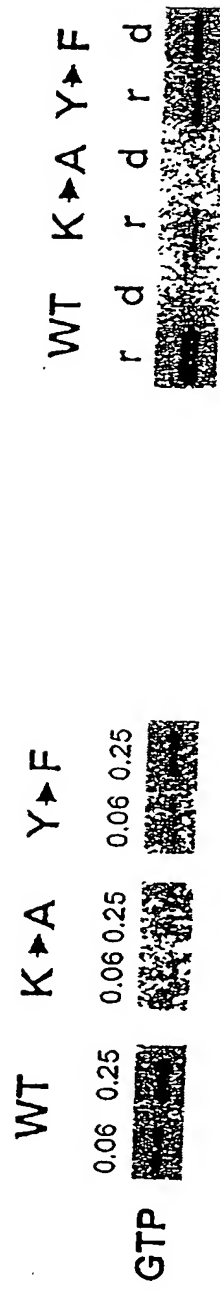


FIG. 17

Detection of *in vivo* activities of N4 vRNAP and mini-vRNAP

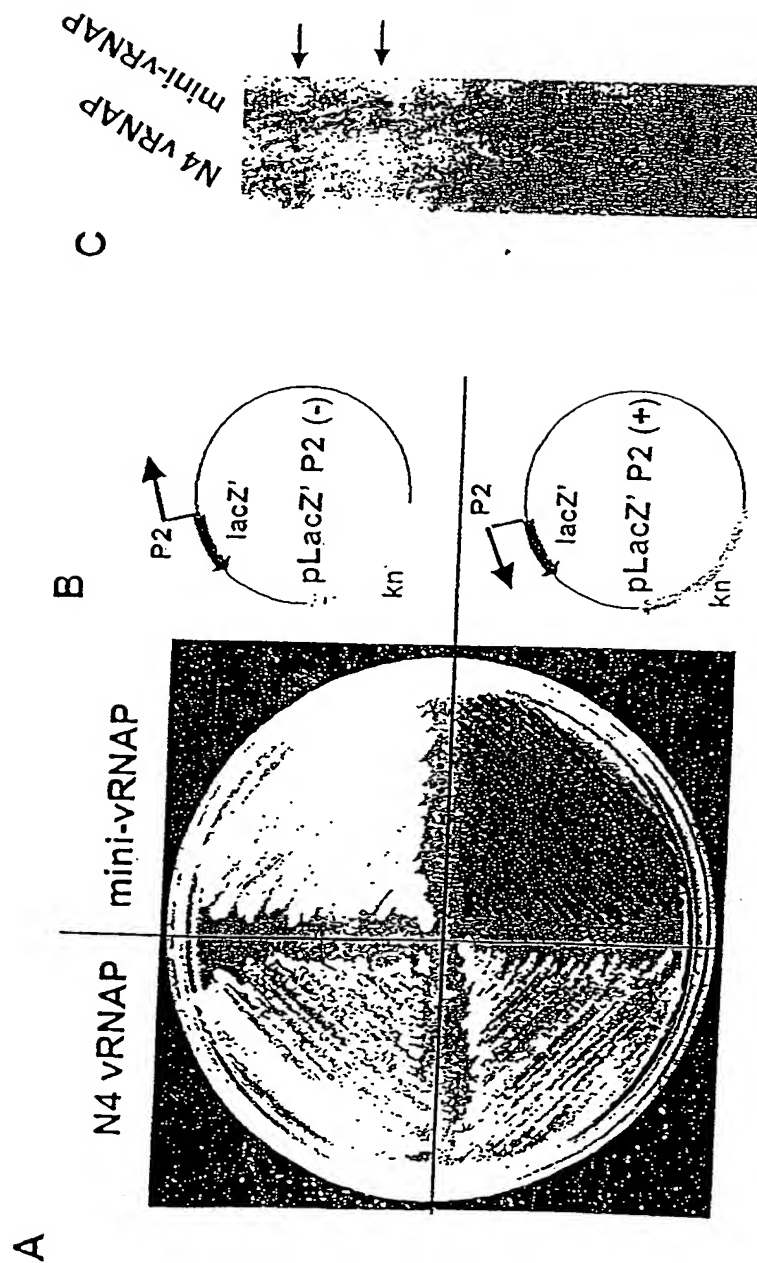


FIG. 18

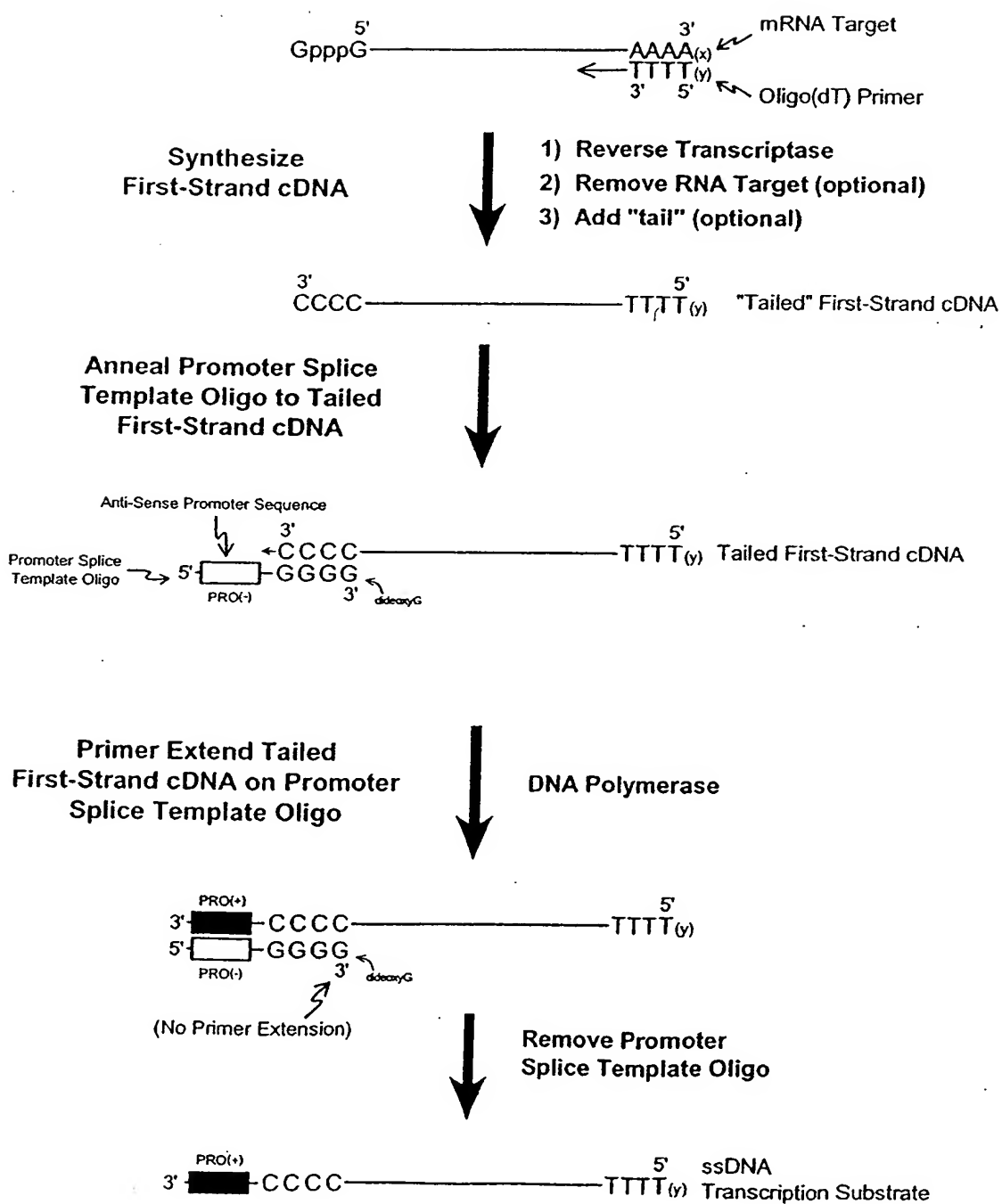


FIG. 19

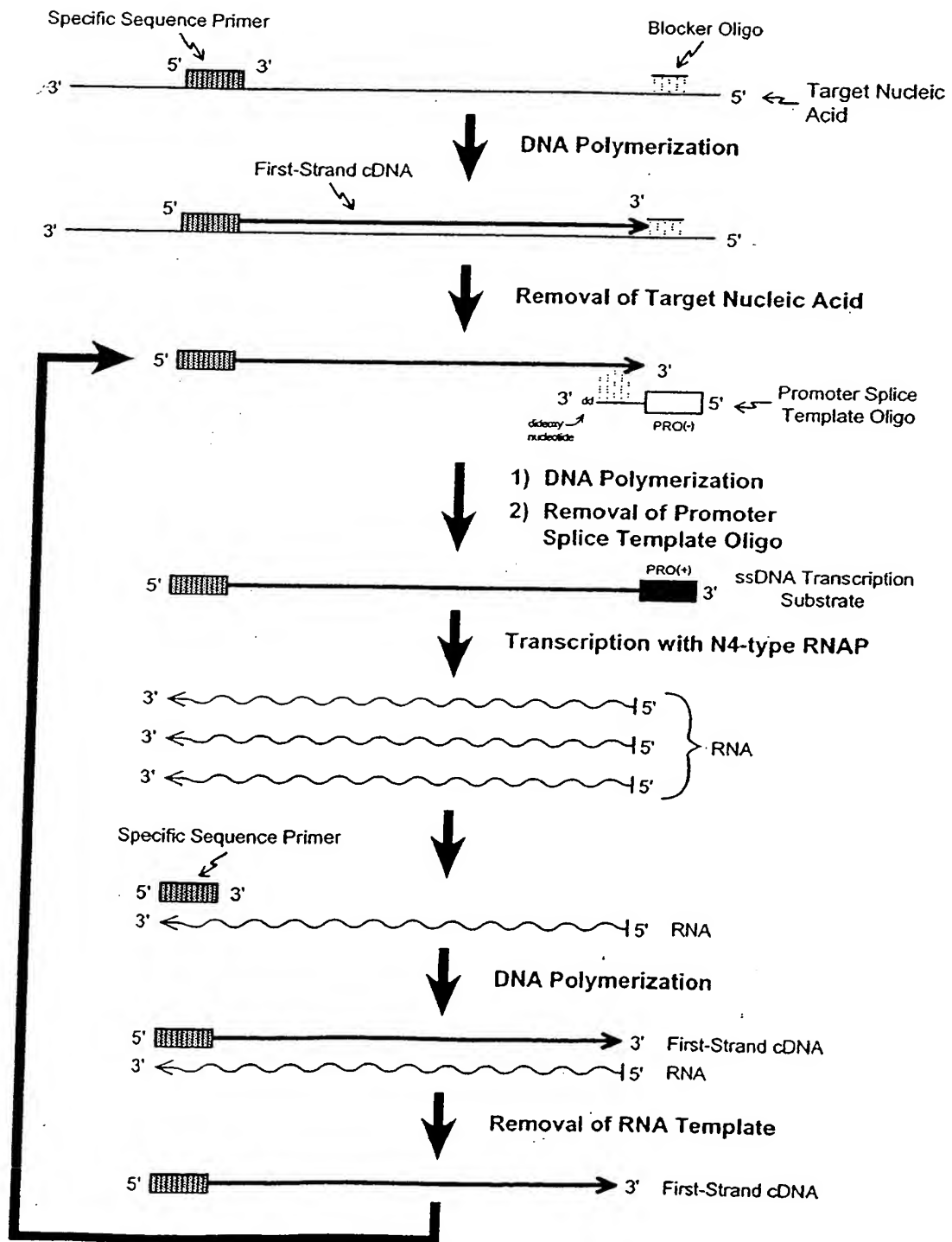


FIG. 20

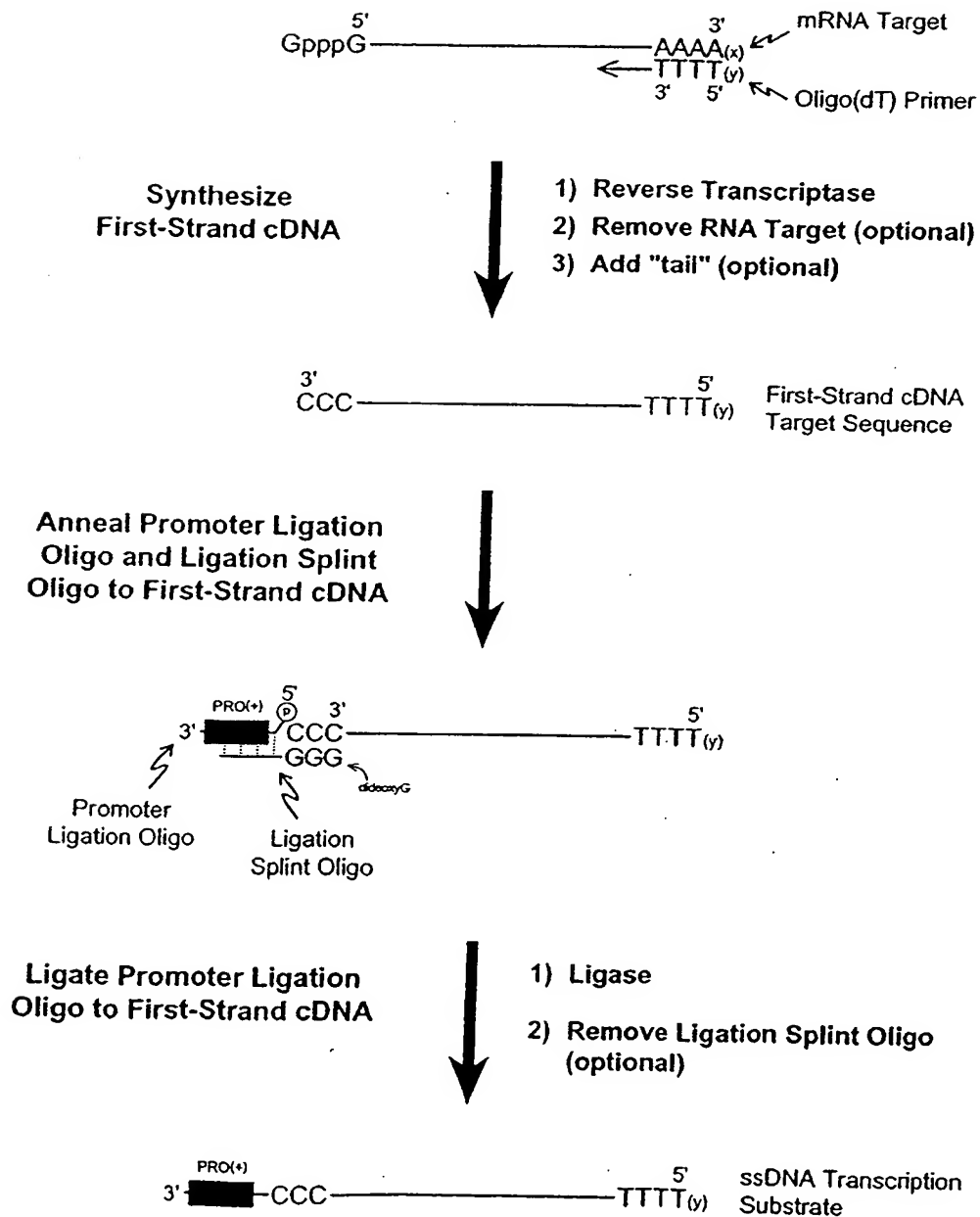


FIG. 21

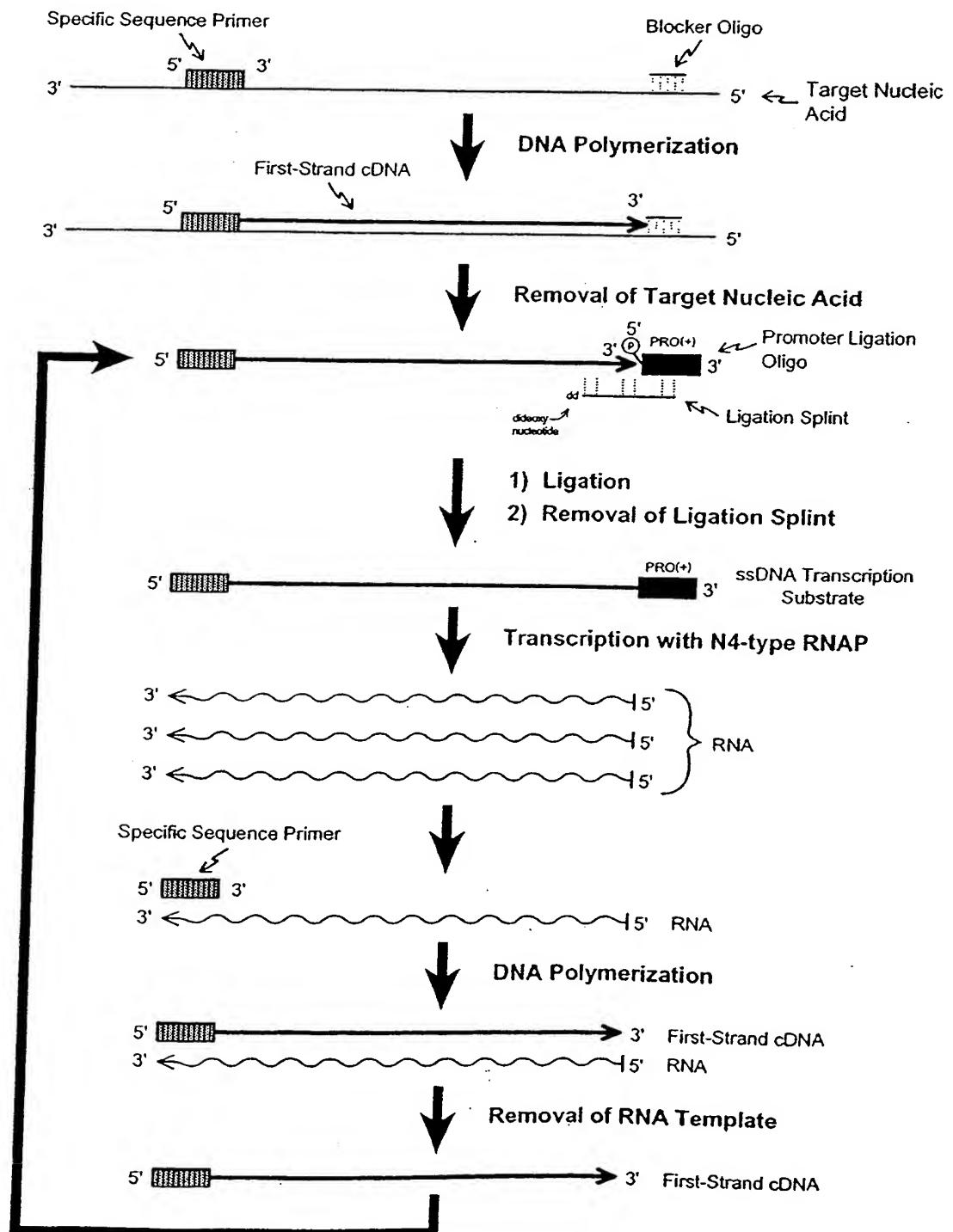


FIG. 22

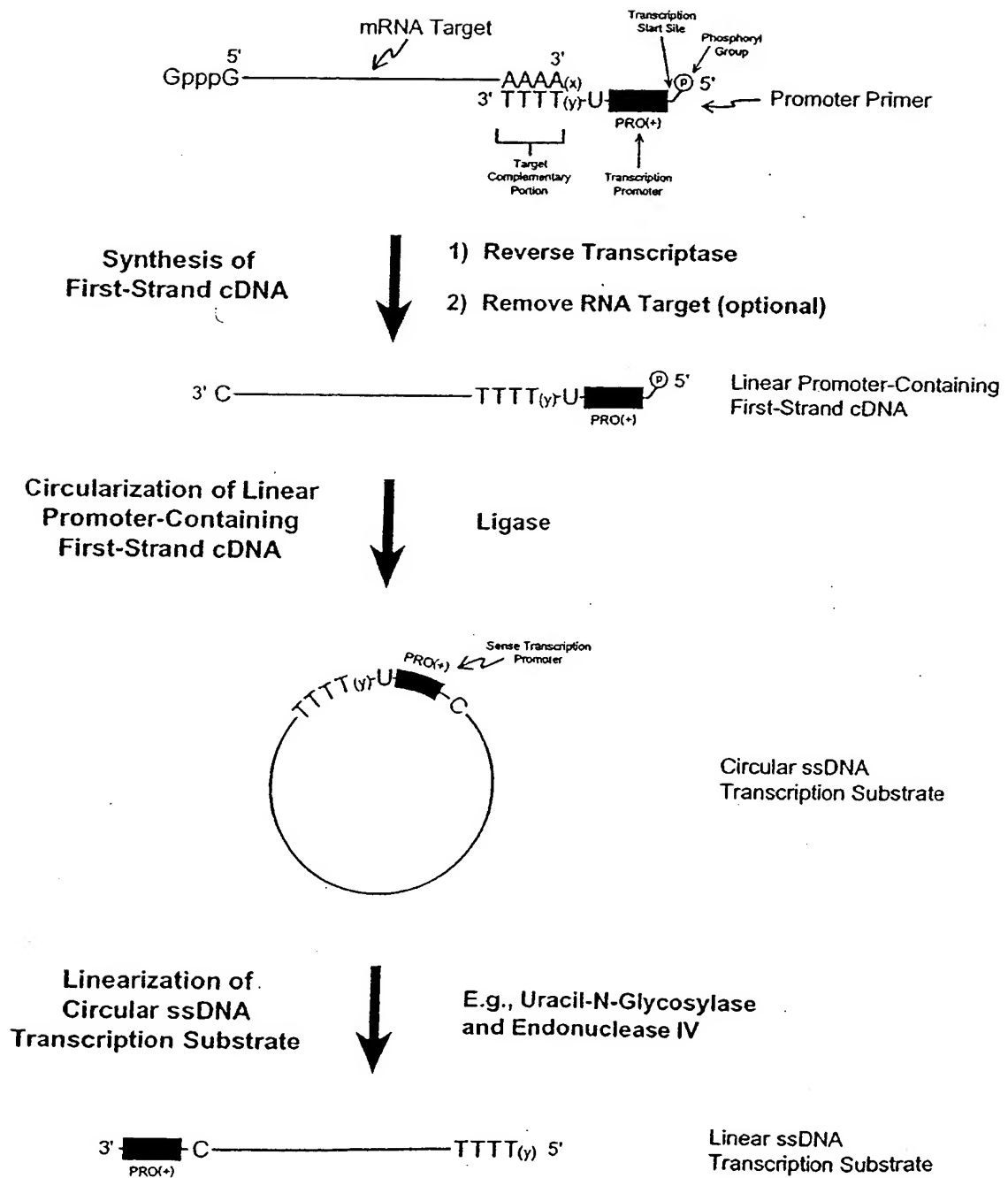


FIG. 23

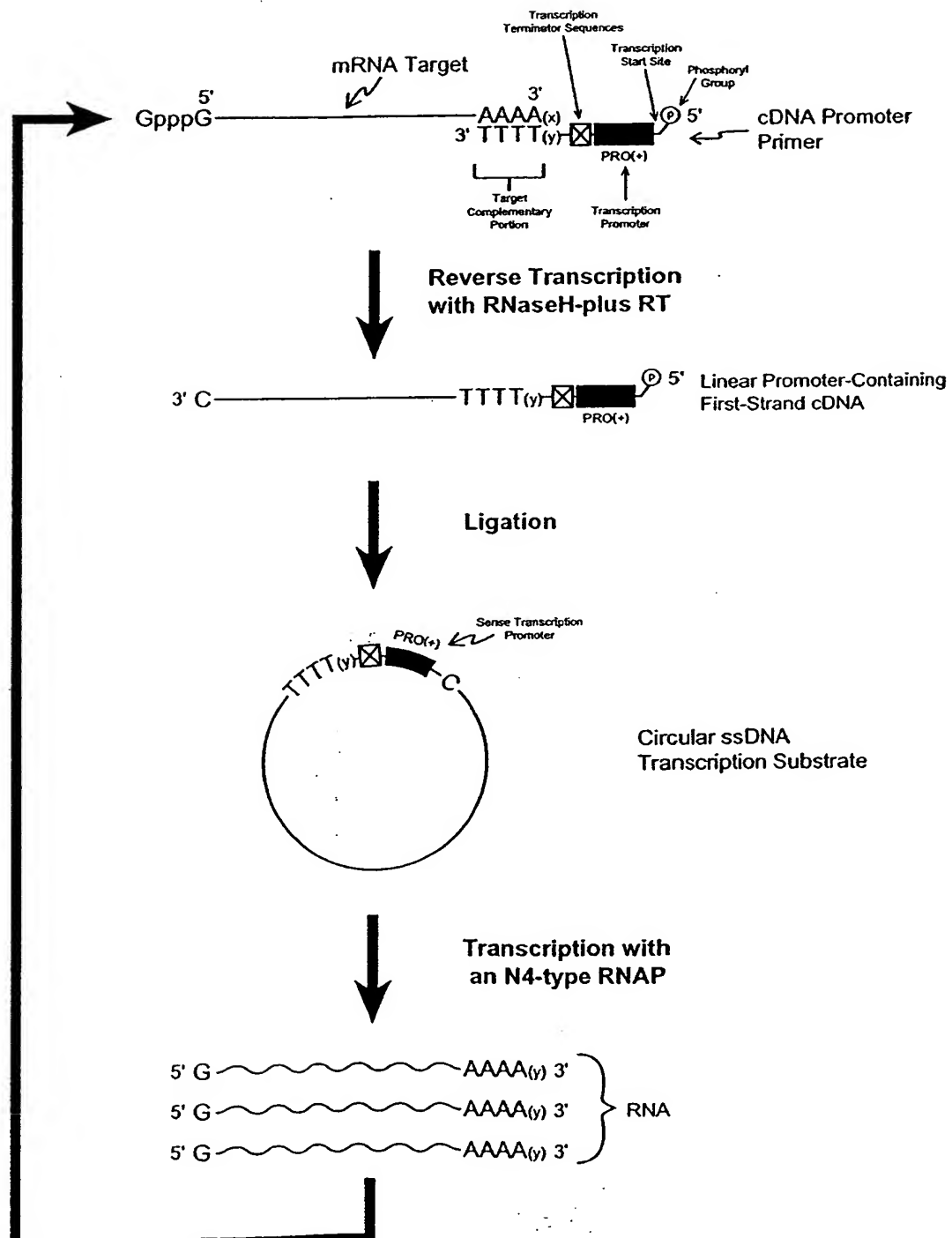


FIG. 24 A

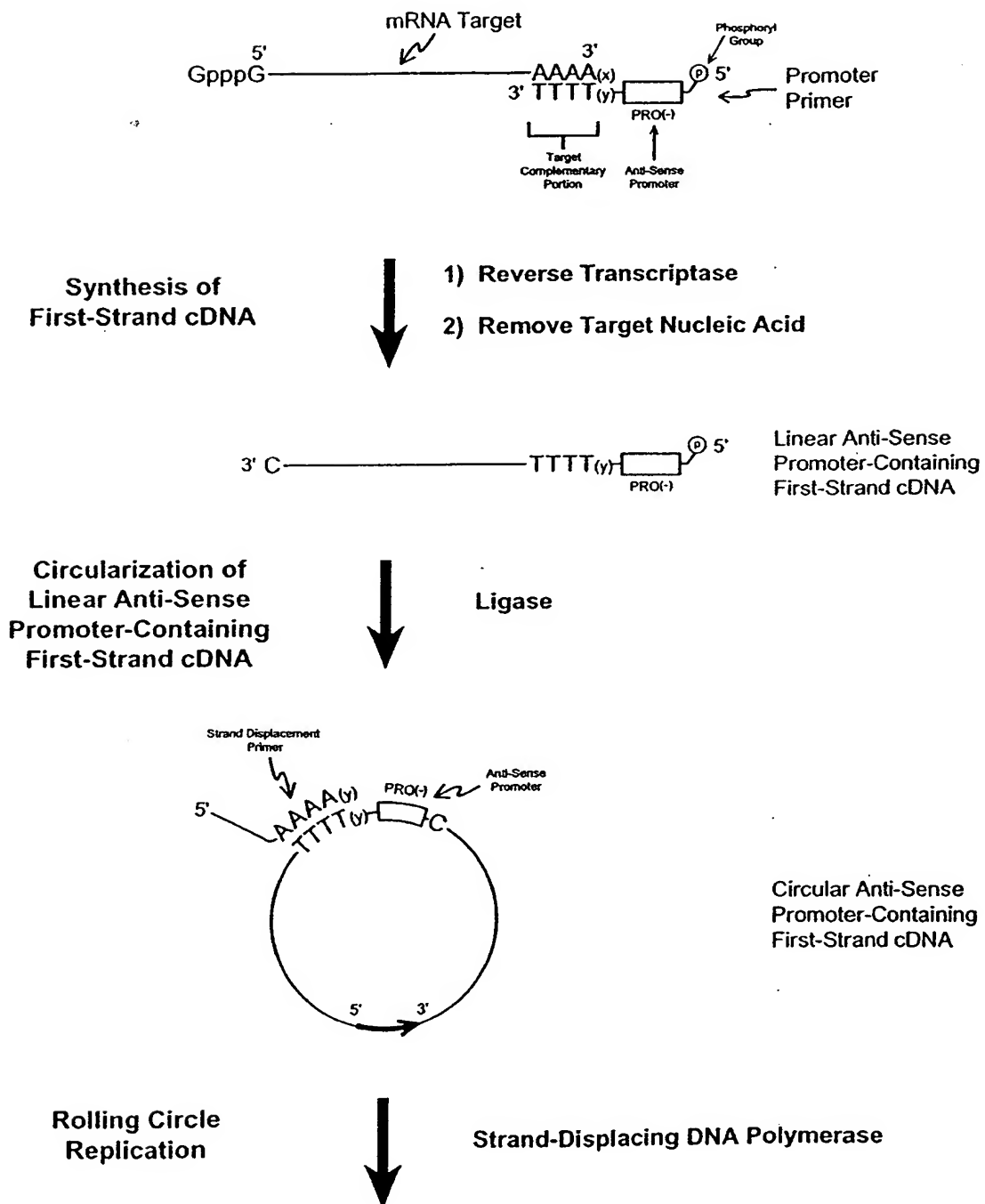
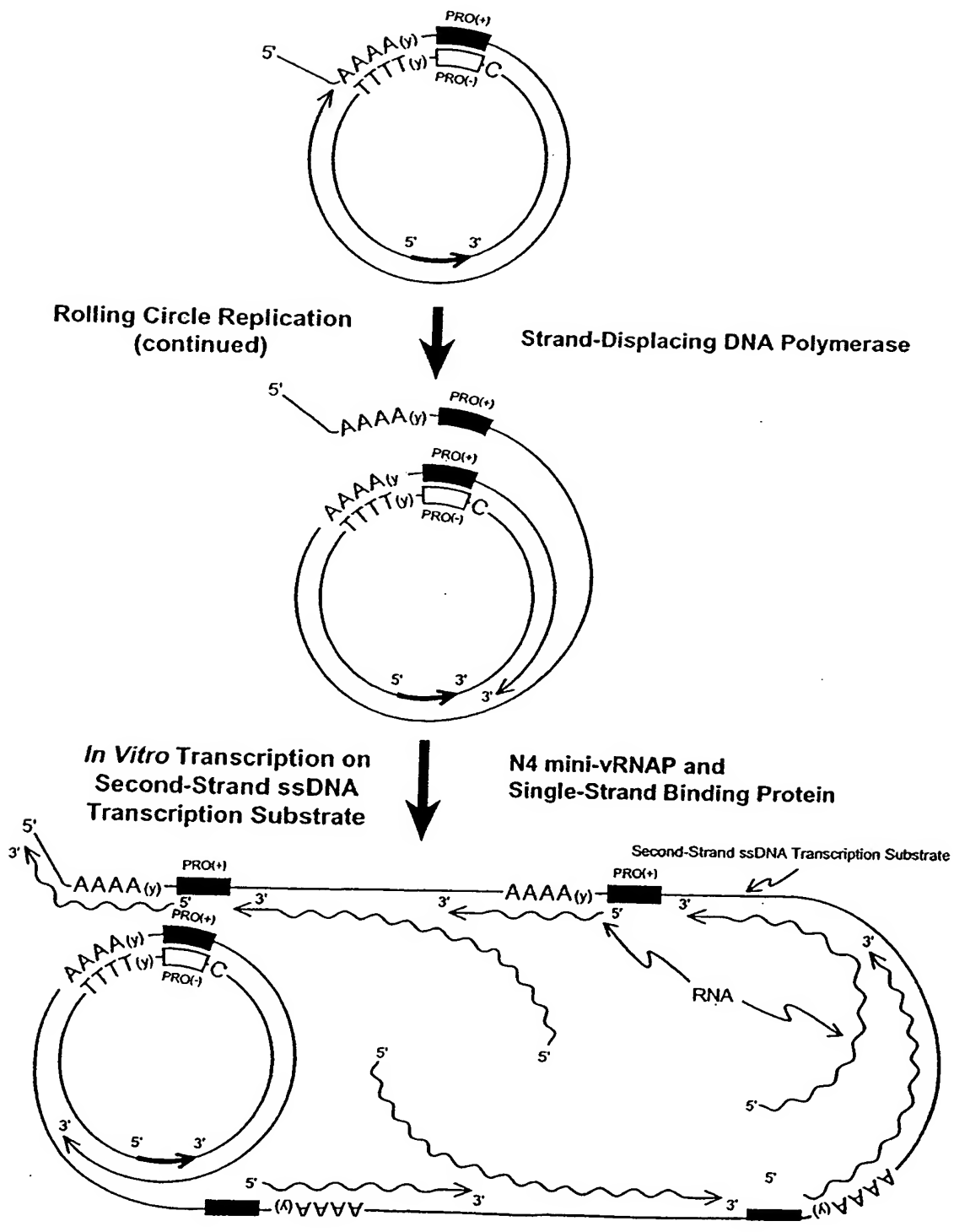


FIG. 24 B



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